

REMARKS

This paper is presented in response to the Office Action. By this paper, claim 19 is amended, claim 20 is canceled and new claims 21-31 are added. Claims 1-19 and 21-31 are now pending as a result of the aforementioned cancellation and new claims.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

I. General Considerations

Applicant notes that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited reference. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

In addition, the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and the references cited by the Examiner, and/or the merits of additional or alternative arguments.

II. Claim Rejections Under 35 U.S.C. § 103

The Office Action rejected claims 1-20 under 35 U.S.C. § 103 as being unpatentable over United States Pre-Grant Pub. No. 2004/0208207 to *Kasper et al.* ("*Kasper*") in view of United States Patent No. 5,119,048 to *Grunwell* ("*Grunwell*"). Applicant respectfully traverses the rejection at least because the prior art references, whether considered individually or in combination, do not teach or suggest all the claim limitations.

According to MPEP section 2143:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In the rejection of the claims, the Examiner has conceded that "...Kasper et al. do not disclose that the transmission lines configured such that impedance of the transmission lines gradually changes over the length so that the tapered transmission lines match the impedance of the driver circuit at the first end and match the impedance of the light emitter at the second end." However, the Examiner asserts that this defect is remedied by *Grunwell*, which purportedly discloses "...use of tapered lines for impedance matching having the impedance of the transmission lines gradually changes over the length..." As to the purported disclosure of *Grunwell*, the Examiner has asserted that "...it would have been obvious to...provide impedance matching of Grunwell to the optical communication of Kasper..." and that one of skill "...would have been motivated to provide such impedance matching transmission line in order to provide compact size." For at least the reasons set forth below, Applicant respectfully disagrees.

At the outset, Applicant respectfully notes that the Examiner has failed to specifically identify what the Examiner believes to constitute the purportedly obvious combination. Instead, and as noted above, the Examiner has stated nothing more than that "...it would have been obvious to...provide impedance matching of Grunwell to the optical communication of Kasper..." Thus, it is unclear to Applicant as to specifically how the Examiner believes one of ordinary skill would modify the *Kasper* device.

As well, the Examiner has failed to specifically identify which element(s) of *Grunwell* are purported to correspond with the "transmission lines" recited in the claims and, instead, simply relies on a vague reference to paragraphs [0023] to [0028] of *Grunwell* in support of the rejection. Notwithstanding, Applicant respectfully submits that the Examiner has failed in any event to establish that *Grunwell* discloses "transmission lines" such as are recited in the claims.

For example, it may be the position of the Examiner that the elements denoted by reference numerals 14 and 16 of *Grunwell* correspond with the claimed "transmission lines"

inasmuch as it appears from Figure 1 that there may be a space between those two elements (see e.g., the rejection of claim 3). Notwithstanding, the Examiner has failed to establish that elements 14 and 16 are configured "...such that impedance of the transmission lines *gradually changes over the length...*" as the claims require.

It may alternatively be the case that the Examiner has taken the view that the element denoted by reference numeral 18 of *Grunwell* corresponds with the claimed "transmission lines" inasmuch as *Grunwell* refers to a "cover ground plane 18...[having an] area...[that] gradually diminishes from the first transmission line 14 to the second transmission line 16..." *Col. 1, lines 59-64*. However, the Examiner has not established that element 18 of *Grunwell* constitutes "tapered transmission lines" (emphasis added) as recited in the claims.

Thus, even if the references are combined, in a manner as yet unspecified by the Examiner, the resulting combination fails to include all the limitations of the rejected claims. The rejection stated by the Examiner is problematic for other reasons as well.

For example, *Kasper* states with regard to the disclosure of Figure 2 of that reference that "The output from the laser driver 52 is coupled via a DC-blocking capacitor 53 to the transmission line 54 and thence to the amplifier 56...The amplifier 56 may be a constant gain, linear amplifier that serves to provide impedance matching to the impedance of transmission line 54..." *Paragraph [0033]. Emphasis added*. As to the use of such an amplifier, *Kasper* states further that "...a fixed-gain linear amplifier can be very simply and may require very little space and few electrical connections." *Paragraph [0035]. Emphasis added*. Inasmuch as *Kasper* purports to disclose an impedance matching arrangement that consumes "very little space," there would appear to be little motivation for one of ordinary skill to modify the *Kasper* device, in a manner as yet unspecified by the Examiner, with the purported teaching of *Grunwell*.

For at least the foregoing reasons, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 1-2 and 10-14, and the rejection of such claims should accordingly be withdrawn.

III. New Claims 21-31

By this paper, Applicant has added new dependent claim 21. Support for claim 21 can be found, for example, in the application at page 7, lines 8-13. Claim 21 is believed to be in allowable condition at least by virtue of its dependence from allowable claim 1.

Additionally, Applicant has added new claims 22-31. Support for new claims 22-31 can be found in the application at, for example, Figures 3A-3D and page 6, line 19 to page 9, line 6. Claims 22-31 are believed to be in allowable condition for at least the reasons set forth herein.

CONCLUSION

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 1-19 and 21-31 is in condition for immediate allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 29th day of January, 2007.

Respectfully submitted,

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